

## Amendments to the Claims

Please cancel claims 1, 5-9, 11-14, and 21-28, and amend the claims as follows:

1.-28 (Canceled)

29. (Currently Amended) ~~The method of claim 4~~ A method for annealing a copper layer, comprising:

forming the copper layer on a substrate by electroplating in a first chamber of an integrated processing system;

rinsing the substrate in a cleaning station of the integrated processing system;

treating the copper layer in a gas environment in a second chamber of the integrated processing system, wherein the gas environment comprises nitrogen (N<sub>2</sub>) and hydrogen (H<sub>2</sub>); and

bringing the substrate in proximity to a cooling plate to cool the substrate to a temperature below about 100°C, wherein treating the copper layer and bringing the substrate in proximity to a cooling plate occur within the same chamber.

30. (Currently Amended) ~~The method of claim 11~~ A method of annealing a copper layer, comprising:

forming the copper layer on a substrate by electroplating in a first chamber of an integrated processing system;

rinsing the substrate in a cleaning station of the integrated processing system;

treating the copper layer in a gas environment at a temperature of between about 200 to about 500°C for a time duration of less than about 5 minutes in a second chamber of the integrated processing system; wherein the gas environment comprises nitrogen (N<sub>2</sub>) and hydrogen (H<sub>2</sub>); and

bringing the substrate in proximity to a cooling plate to cool the substrate to a temperature below about 100°C, wherein treating the copper layer and bringing the substrate in proximity to a cooling plate occur within the same chamber.